he placed his wallet on top of the right engine intake, about a foot aft of the lip. After suiting up, he unknowingly left his wallet on the engine. He climbed aboard the aircraft, started the engines, and was cleared for takeoff. He taxied the jet into position and advanced the throttles to military power. Noticing abnormal engine indications, he immediately secured the starboard engine. After taxiing back to the flight line, he realized his wallet was missing. A subsequent inspection of the starboard engine revealed wallet residue.

Maintainers and aircrew must remember never to use the aircraft engines, intake lips, or surrounding areas for temporary storage. These convenient spots are not the place for cranials, speed handles, functional check-flight checklists, test boxes, or any material! You must ask yourself, "Did I leave anything behind?" A torque tip, portion of cranial hardware, ink pen, or any item left behind and unnoticed can have deadly consequences. The easiest way to avoid this problem is to de-FOD yourself before leaving the shop or the ready room. You won't need pocket change, ID card, smokes, or a lighter on the line or in an aircraft.

- A ground crewman fell off an S-3 and struck his heel on deck, causing a major injury. The Viking had a complex flight-control-system malfunction that was difficult to troubleshoot, requiring numerous trips up and down the aircraft steps. Returning from the hangar bay with the necessary parts, the maintainer walked near the No. 2 engine, which had leaked a small amount of oil that mixed with hydraulic fluid on the deck. He did not notice these oily fluids and climbed the aircraft to begin work on the horizontal stabilizer. He felt his foot slip, lost his balance, and fell. The maintainer landed feet first, breaking his left heel.
- During a re-spot, an F-14 was being towed near the No. 3 jet-blast deflector. The aircraft's starboard wing, horizontal stabilizer, and slat were damaged when the JBD unexpectedly was raised. The aircraft was being moved from fighter row to the fantail. A short cycle meant JBD pre-op checks and aircraft re-spots would occur at the same time. The flight-deck crew did not clear the JBD arc, lost situational awareness, failed to adhere to standard operational procedures, and failed to suspend operations on JBD No. 3. Also, supervisors made some gross errors.

Senior Chief Novak is a maintenance analyst at the Naval Safety Center.

Who Was the Loadmaster on That Truck?

By ATCS(AW) Wallace Williams

The spring 2003 issue contains a story called, *"A Gotta-Get-It-Done Attitude Turns Into a $135,248 Mishap."* I want to add a few beneficial preventive measures.

That story involved an AT1 and an AT2 assistant who had to return a truckload of ALQ-126B modules and ALQ-167 pods after a standard six-month deployment. The trip ended in an expensive mishap and denied the fleet scarce and important avionics components. I want to look at their story and to do some armchair quarterbacking.

The weather was less than ideal: rain and a wind-chill factor considerably below comfort level. The POIC of the task also was the truck's driver. He didn't want to make two trips, which would have caused him to arrange secure storage for the remaining pallets, crane lifts, and other workers. He felt the job easily could stretch to two days. He decided the pallets didn't stick out too far, and the top-heavy load wasn't too unsteady. He reasoned that most of the drive would be on an interstate. His confidence allowed him to decide the gear did not need to be tied down.

Even if you haven't read that story, you probably guessed the load didn't make it. These maintainers were fortunate no vehicles collided with the gear. To make matters worse, the "Bullwinkle" pods hit a series of telephone poles in the last few miles to their destination–a few more assets damaged.

My analysis is not used to lay blame. I wish only to take an impartial look at what went wrong, and how maintenance managers can prevent future occurrences under similar circumstances.

Human-factor mistakes usually involve stressors that occur in everyday life, and those errors affect our performance. Amplify these stressors with the rigors of Navy life, and a mishap will develop. I recognized six key human-factor errors:

✍ Lack of knowledge and resources. The POIC never had had to move equipment like this before, but he was a sharp Sailor and thought he could handle it. However, several items worked against him: The 10-ton truck he had trained on was not provided; instead, a commercial truck was leased.

The driver was not trained to drive this truck but took on the task anyway because he had experience with rented trucks.

✍ Lack of awareness. The tie-down straps located under the flatbed were not used because the driver did not know they were there.

✍ An abundance of pressure. The truck was overloaded because the driver wanted to make just one trip. Time had been lost obtaining secure storage and getting pier services, adding anxiety about another delay and more rental cost.

✍ An abundance of distraction. These Sailors just had returned from deployment and perhaps were not focused fully on the task.

✍ An abundance of complacency. The POIC saw the truck was not loaded correctly but decided to press on anyway.

✍ Norms. The *Mech* story did not mention if a supervisor had checked the loading of the truck. It appears this lack of a second supervisory layer was not unusual for this command.

Supply and AIMD worked together to get the gear off the boat and to provide transportation, indicating good teamwork and communication. Despite these efforts, the fleet lost several assets because people didn't supervise, didn't develop a contingency plan, didn't double-check the security of the load, and didn't anticipate inclement weather. They allowed a shortcut and thought they could get away with it. The AT1 was not solely to blame.

How many times have you been in a similar situation? I have been there and know I accepted risks that I shouldn't have. Luck was with me then, but we can't always count on luck. We can count on ORM to help us with unfamiliar jobs, allowing us to plan accordingly.

Senior Chief Williams is a maintenance analyst at the Naval Safety Center.

LINE

If You Don't Want to Share Your Whistle, Try an Air Horn

By ADCS(AW) Timothy Davis

One way to get a plane captain's blood hot is to put his or her whistle in your mouth. With current manning shortages, many squadrons are augmenting their flight-line ops with any available maintainers. This solution is more the rule than an exception. When aircraft need to be moved, the lack of people forces some to share whistles or to do without them, which violates the rules for aircraft moves.

Wing walkers are required to have a whistle in their mouth anytime an aircraft moves. Nine of 10 augmented people arrive at an aircraft ready to help but often without a whistle, and those people with whistles often borrow them. In many line shacks, these items have become community property and are shared when necessary. No one likes to share such a personal item, but situations often dictate that we do.

Most line divisions have just enough whistles for their people. Several commands issue whistles with every cranial assigned to individuals. This matter becomes a tool-control issue: The line division now must manage more than 10 whistles. A push-button signal horn (an air horn) may be a good alternative to the shared whistles and to the obvious hygiene concerns.

Several manufacturers and types are available through the supply system or via open purchase. The air horn sounds a blast that can be heard over the roar of aircraft engines. These items are 100 percent ozone-safe, non-flammable and replaceable or refillable. Several versions are reserviced with a low-pressure, bicycle-type pump that comes with the unit.

If your command wants to incorporate these items, first get an authorization to deviate from the tool-control plan (e.g., replace the whistles with air horns). The chain of command must approve these items before they can be used. The air horn is a tool, and, if adopted, they must be accounted for, like any other tool. If you don't want to share whistles, air horns may be the tool for you.

Senior Chief Davis is a maintenance analyst at the Naval Safety Center.

For more info…

Consult the GSA catalog and other supply documents for information on air-horn models and manufacturers. The version tested for this story is made by Falcon Safety Products, Inc. Their model PBSH costs $26.99 and refill model PBSHNR costs $14.99.